Appl. No. 10/579,880
Amdt. Dated July 23, 2009
Reply to Office Action of January 27, 2009

Amendments to the Claims:

This listing will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): An analog input system that uses an analog signal input terminal

to convert an analog signal into a digital signal and send the converted digital signal to a host

computer via a network, wherein

the analog signal input terminal comprises at least:

an analog signal input unit;

an A/D converter for converting the analog signal into a digital signal;

a network controller for controlling data transmission and reception, to which an Internet

protocol (IP) connection is possible;

a terminal-side IP connection establishing unit for establishing two connections with the

host computer, these being, an inbound socket connection for receiving control signals from the

host computer and an independent outbound socket connection for sending digital signals to the

host computer;

a control signal processing unit for receiving control signals related to at least a start

request and a stop request from the host computer; and

3

a signal transmitting unit for sending digital signals according to the control signals; and

wherein

the host computer comprises at least:

a network adapter for controlling data transmission and reception, to which an IP

connection is possible;

a host-side IP connection establishing unit for establishing two connections, that is, an

inbound socket connection for receiving digital signals from the analog signal input terminal and

an independent outbound socket connection for sending control signals to the analog signal input

terminal; to and from the analog signal input terminal;

a control signal processing unit for sending control signals related to at least a start

request and a stop request to the analog signal input terminal;

an application processing unit for executing an application and allowing the application

to use the said digital signals; and

an IP connection disconnecting unit for disconnecting the inbound socket connection

and the outbound socket connection.

Claim 2 (Currently amended): The analog signal input system according to claim 1, wherein:

the terminal-side IP connection establishing unit in the analog signal input terminal

establishes an the inbound socket connection from the host computer when the terminal-side IP

connection establishing unit detects an the outbound socket connection from the host computer;

4

Appl. No. 10/579,880
Amdt. Dated July 23, 2009
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and

the host-side IP connection establishing unit in the host computer establishes ~~an~~ the

outbound socket connection to the analog signal input terminal.

Claim 3 (Previously presented): The analog signal input system according to claim 1, wherein

the analog signal input terminal is provided with a microphone, an output signal from which is

input into the analog signal input unit.

Claim 4 (Previously presented): The analog signal input system according to claim 1, wherein

the network is a wireless communication network, the network controller and network adapter

being compatible with the wireless communication network.

Claim 5 (Previously presented): The analog signal input system according to claim 1, wherein:

the network uses the user datagram protocol (UDP) to include an IP packet at the time of

the IP connection in a UDP packet; and

characteristic information data related to the signal contents of the digital signal

retrieved is included in a header field in the UDP protocol for transmission.

Claim 6 (Original): The analog signal input system according to claim 5, wherein the analog

signal is a voice signal, and the characteristic information data is at least any one of a voice level,

5

a sampling rate, and the number of bits per sample.

Claim 7 (Currently amended): An analog signal output system in which a digital signal is sent

from a host computer to an analog signal output terminal through a network and the analog signal

output terminal converts the digital signal into an analog signal and then outputs the analog

signal, wherein

the analog signal output terminal comprises at least: ~~least;~~

a network controller for controlling data transmission and reception, to which an Internet

protocol (IP) connection is possible;

a terminal-side IP connection establishing unit for establishing ~~two connections that is~~

an inbound socket connection for receiving control signals from the host computer and an

independent outbound socket connection ~~to and from the host computer~~ for sending digital

signals to the host computer;

a control signal processing unit for receiving control signals related to at least a start

request and a stop request from the host computer;

a signal receiving unit for receiving digital signals according to the control signals;

a D/A converter for converting the digital signals into analog signals; and

an output unit for outputting the analog signals; and wherein

the host computer comprises at least:

a network adapter for controlling data transmission and reception, an IP connection to

6

which is possible;

a host-side IP connection establishing unit for establishing ~~two connections, that is,~~ an inbound socket connection <u>for receiving digital signals from the analog signal input terminal</u> and an <u>independent</u> outbound socket connection <u>for sending control signals to the analog signal input terminal</u>;~~, to and from the analog signal output terminal;~~

a control signal processing unit for sending control signals related to at least a start request and a stop request to the analog signal output terminal;

an application processing unit for executing an application and causing the application to generate a digital signal;

a signal transmitting unit for sending the generated digital signal; and

an IP connection disconnecting unit for disconnecting the inbound socket connection and the outbound socket connection.

Claim 8 (Currently amended): The analog signal output system according to claim 7, wherein:

the terminal-side IP connection establishing unit in the analog signal output terminal establishes ~~an~~ <u>the</u> inbound socket connection from the host computer when ~~an~~ <u>the</u> outbound socket connection from the host computer is detected; and

the host-side IP connection establishing unit in the host computer establishes ~~an~~ <u>the</u> outbound socket connection to the analog signal output terminal.

7

Claim 9 (Currently amended): The analog signal output system according to claim 7, wherein:

the analog signal output terminal has a buffer area and a data requesting unit, the data

requesting unit sending a data transmission request signal according to a storage capacity of the

buffer area; and

the signal transmitting unit in the host computer sends a digital signal according to the

transmission request signal.

Claim 10 (Previously presented): The analog signal output system according to claim 7, wherein

a speaker is provided on the analog signal output terminal, an output signal from the output unit

being generated as voice from the speaker.

Claim 11 (Previously presented): The analog signal output system according to claim 7, wherein

the network is a wireless communication network, the controller and network adapter being

compatible with the wireless communication network.

Claim 12 (Previously presented): The analog signal output system according to claim 7,

wherein:

the network uses the user datagram protocol (UDP) to include an IP packet at the time of

the IP connection in a UDP packet; and

characteristic information data related to the signal contents of the digital signal

8

retrieved is included in a header field in the UDP protocol for transmission.

Claim 13 (Original): The analog signal output system according to claim 12, the analog signal is a voice signal, and the characteristic information data is at least any one of a voice level, a sampling rate, and the number of bits per sample.

Claim 14 (Previously presented): The analog signal output system according to claim 7, wherein the analog signal output terminal has a buffer with a prescribed capacity, which is used to store digital signals received by the signal receiving unit; the analog signal output terminal also has at least a monitoring unit for monitoring an amount of digital signals stored in the buffer or a remaining capacity of the buffer and a synchronization control unit for changing a sampling clock in the D/A converter according to either the amount of digital signals stored or the remaining capacity; analog signals output by the output unit are synchronized.

Claim 15 (Original): The analog signal output system according to claim 14, wherein the analog signal output system has two or more analog signal output terminals for one host computer; two or more types of voice data, including right and left stereo channel voice data, are output to each analog signal output terminal, and voice outputs from the two or more analog signal output terminals are mutually synchronized by a function of the synchronization control unit.

9

Claim 16 (Currently amended): The analog signal output system according to ~~any~~ claim 7,

wherein a remote operation terminal for remotely operating an output mode from the analog

signal output terminal is provided on the network; the host computer and remote operation

terminal are interconnected through an operation socket that is different from ~~the two~~

~~connections, that is,~~ the inbound socket connection and outbound socket connection; when the

remote operation terminal sends a remote operation signal to the host computer, the network

adapter in the host computer receives the remote operation signal and then the control signal

processing unit sends a control signal according to the remote operation signal.

10